

Safety Attribute Inspection (SAI) Data Collection Tool
1.2.4 Mechanical Interruption Summary (MIS) / Service Difficulty Report (SDR) (AW)
Revision#: 7 Revision Date: 09/30/2013

ELEMENT SUMMARY INFORMATION

Scope of Element:

Purpose (operator's responsibility): To establish policy, procedures, instructions, and information necessary for personnel to perform the duty of accomplishing Mechanical Interruption Summary (MIS) / Service Difficulty Report (SDR) process.

Objective (FAA oversight): To determine if the operator's Mechanical Interruption Summary (MIS) / Service Difficulty Report (SDR) process:

- Meets all applicable requirements of Title 14 of the Code of the Federal Regulations (14 CFR) and FAA policies;
- Incorporates the safety attributes; and
- Identify any shortfalls in the operator's Mechanical Interruption Summary (MIS) / Service Difficulty Report (SDR) process.

Specific Instructions:

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SUPPLEMENTAL INFORMATION

Regulatory Requirements:

121.135, Manual contents
121.373, Continuing analysis and surveillance.
121.703, Service difficulty reports.
121.705, Mechanical interruption summary report.

Related CFRs & FAA Policy/Guidance:

Related CFRs:

Intentionally left blank

FAA Policy/Guidance:

Intentionally left blank

SAI SECTION 1 - PROCEDURES ATTRIBUTE**Objective:**

The questions in this section of the SAI will help verify that the operator's documented procedures identify who, what, when, where, and how those procedures are accomplished. These procedures must allow all personnel to perform their duties and responsibilities with a high degree of safety.

14 CFR part 121.135(a)(1)

Tasks

	The inspector shall accomplish the following tasks:
1	Review the information in the Supplemental Information Section of this SAI.
2	Review the duties and responsibilities for management and other personnel who accomplish the processes associated with this element.
3	Review the documentation of the processes associated with this element.
4	Review documented interfaces to identify interactions between related processes, interactions within this element process, and between one person, workgroup, or organization to another that the operator uses to accomplish this process.

Questions

1.1	<p>Do procedures specify that the operator shall submit a mechanical interruption summary (MIS) report to the Administrator before the end of the 10th day of the following month, for the following occurrences:</p> <ul style="list-style-type: none"> Each interruption to a flight caused by known or suspected mechanical difficulties or malfunctions that are not required to be reported under 14CFR part 121.703, Service Difficulty Reports; Each unscheduled change of aircraft en route or unscheduled stop or diversion from a route caused by known or suspected mechanical difficulties or malfunctions that are not required to be reported under 14CFR part 121.703; The number of engines removed prematurely because of malfunction, failure, or defect, listed by make and model and the aircraft type in which it was installed; and If installed, the number of propeller featherings in flight, listed by type of propeller, engine, and aircraft on which it was installed? <p>Note(s): <i>Number of propeller featherings for training, demonstration, or flight check purposes need not be reported.</i></p> <p>Updated: Rev # 2 on 12/03/2009 SRRs: 121.135(a)(1); 121.705(a); 121.705(b); 121.705(c) Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.2	Are there procedures for personnel to report the occurrence or detection of each failure, malfunction, or defect concerning:	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

	<ul style="list-style-type: none"> • Fires during flight and whether the related fire-warning system functioned properly; • Fires during flight not protected by a related fire-warning system; • False fire warning during flight; • An engine exhaust system that causes damage during flight to the engine, adjacent structure, equipment, or components; • An aircraft component that causes accumulation or circulation of smoke, vapor, or toxic or noxious fumes in the crew compartment or passenger cabin during flight; • Engine shutdown during flight because of flameout; • Engine shutdown during flight when external damage to the engine or airplane structure occurs; • Engine shutdown during flight due to foreign object ingestion or icing; • Engine shutdown during flight of more than one engine; • A propeller feathering system or ability of the system to control overspeed during flight; • A fuel or fuel-dumping system that affects fuel flow or causes hazardous leakage during flight; • An unwanted landing gear extension or retraction, or an unwanted opening or closing of landing gear doors during flight; • Brake system components that result in loss of brake actuating force when the airplane is in motion on the ground; • Aircraft structure that requires major repair; • Cracks, permanent deformation, or corrosion of aircraft structures, if more than the maximum acceptable to the manufacturer or the FAA; • Aircraft components or systems that result in taking emergency actions during flight (except action to shut down an engine); and • Emergency evacuation systems or components including all exit doors, passenger emergency evacuation lighting systems, or evacuation equipment that are found defective, or that fail to perform the intended functions during an actual emergency or during training, testing, maintenance, demonstrations, or inadvertent deployments? <p>Updated: Rev # 3 on 03/03/2010 SRRs: 121.135(a)(1); 121.703(a)(1); 121.703(a)(10); 121.703(a)(11); 121.703(a)(12); 121.703(a)(13); 121.703(a)(14); 121.703(a)(15); 121.703(a)(16); 121.703(a)(17); 121.703(a)(2); 121.703(a)(3); 121.703(a)(4); 121.703(a)(5); 121.703(a)(6); 121.703(a)(7); 121.703(a)(8); 121.703(a)(9); 121.703(b) Kind Of Question: Flag, Supplemental, Domestic</p>	
1.3	<p>Do procedures require the operator to report any failure, malfunction, or defect in an aircraft that occurs, or is detected at any time, if it has endangered or may endanger the safe operation of an aircraft?</p> <p>Note(s): <i>These reports are in addition to the reporting of those items identified in 14 CFR part 121.703(a).</i></p> <p>Updated: Rev # 2 on 12/03/2009 SRRs: 121.135(a)(1); 121.703(c) Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.4	<p>Do procedures specify that each service difficulty report (SDR) will cover a 24-hour period beginning at 0900 local time of each day, and be submitted to the FAA offices in Oklahoma City, Oklahoma within the next 96 hours?</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

	<p>Note(s): <i>A report due on Saturday or Sunday may be submitted on the following Monday, and a report due on a holiday may be submitted on the next work day.</i></p> <p>Updated: Rev # 2 on 12/03/2009 SRRs: 121.135(a)(1); 121.703(d) Kind Of Question: Flag, Supplemental, Domestic</p>	
1.5	<p>Do procedures require service difficulty reports (SDR) be submitted on a form or a format acceptable to the Administrator that includes:</p> <ul style="list-style-type: none"> • Type and identification number of the aircraft; • The name of the operator; • The date, flight number, and stage during which the incident occurred (e.g., preflight, takeoff, climb, cruise, descent landing, and inspection); • The emergency procedure effected (e.g., unscheduled landing and emergency descent); • The nature of the failure, malfunction, or defect; • Identification of the part and system involved, including available information pertaining to type designation of the major component and time since overhaul; • Apparent cause of the failure, malfunction, or defect (e.g., wear, crack, design deficiency, or personnel error); • Whether the part was repaired, replaced, sent to the manufacturer, or other action taken; • Whether the aircraft was grounded; and • Other pertinent information necessary for more complete identification, determination of seriousness, or corrective action? <p>Updated: Rev # 2 on 12/03/2009 SRRs: 121.703(e)(1); 121.703(e)(10); 121.703(e)(2); 121.703(e)(3); 121.703(e)(4); 121.703(e)(5); 121.703(e)(6); 121.703(e)(7); 121.703(e)(8); 121.703(e)(9) Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.6	<p>Do service difficulty report (SDR) procedures identify when it is not necessary to report a failure, malfunction, or defect under 14 CFR part 121.703?</p> <p>Note(s): <i>An operator that is also the holder of a Type Certificate, a Supplemental Type Certificate, a Parts Manufacturer Approval, or a Technical Standard Order Authorization, or that is the licensee of a Type Certificate holder, need not report a failure, malfunction, or defect if the failure, malfunction, or defect has been reported by it under 14 CFR part 21.3 or under the accident reporting provisions of 49 CFR part 830.</i></p> <p>Updated: Rev # 2 on 12/03/2009 SRRs: 121.703(f) Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain <input type="checkbox"/> Not Applicable
1.7	<p>Do procedures require the timely submission of a service difficulty report (SDR) even if all the required information is not available?</p> <p>Updated: Rev # 2 on 12/03/2009 SRRs: 121.703(g)</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

	Kind Of Question: Flag, Supplemental, Domestic	
1.8	<p>Do service difficulty report (SDR) procedures require prompt submission of any supplemental information concerning a previously reported failure, malfunction, or defect?</p> <p>Note(s): <i>Supplemental reporting must reference the date and place of submission of the first report.</i></p> <p>Updated: Rev # 2 on 12/03/2009 SRRs: 121.703(h) Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.9	<p>Does the manual contain policies and procedures that include the duties and responsibilities for personnel involved with this element?</p> <p>Note(s): <i>This includes personnel, in addition to those required by 14 CFR part 119, who have authority and responsibility for processes covered by this element.</i></p> <p>Updated: Rev # 2 on 12/03/2009 SRRs: 121.135(b)(2) Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.10	<p>Does the manual refer to the appropriate sections of 14 CFR, and are the procedures consistent with the appropriate 14 CFR references or Operating Certificate concerning this element?</p> <p>Note(s): <i>Procedures for Flag and Supplemental operations must be consistent with applicable foreign regulations as well.</i></p> <p>Updated: Rev # 2 on 12/03/2009 SRRs: 121.135(a)(4); 121.135(b)(3) Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.11	<p>Does the manual contain general policies that require compliance with the SRRs?</p> <p>Updated: Rev # 2 on 12/03/2009 SRRs: 121.135(b)(1) Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
1.12	<p>Are the procedures written in enough detail to ensure the effective coordination of work activities from one person, workgroup, or organization to another to ensure the desired result?</p> <p>Updated: Rev # 7 on 09/30/2013 Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

SAI SECTION 1 - PROCEDURES ATTRIBUTE

Drop-Down Menu

1. No policy, procedures, instructions, or information specified.
2. Procedures or instructions and information do not identify who, what, when, where, how.
3. Policy, procedures, or instructions and information do not comply with CFR.

4.	Policy, procedures, or instructions and information do not comply with FAA policy and guidance.
5.	Policy, procedures, or instructions and information do not comply with other documentation (e.g., manufacturer's data, Jeppesen Charts, etc.).
6.	Policy, procedures, or instructions and information unclear or incomplete.
7.	Documentation quality (e.g., unreadable or illegible).
8.	Policy, procedures, or instructions and information inconsistent across certificate holder manuals (FOM - Flight Operations Manual to GMM - General Maintenance Manual, etc.).
9.	Policy, procedures, or instructions and information inconsistent across media (e.g., paper, microfiche, electronic).
10.	Resource requirements incomplete (personnel, facilities, equipment, technical data).
11.	Other.

SAI SECTION 2 - CONTROLS ATTRIBUTE	
Objective: The questions in this section of the SAI will help determine if controls (i.e. checks and restraints) are designed into the processes associated with this element to ensure policies and procedures are followed to achieve desired results.	
Tasks	
The inspector shall accomplish the following task:	
1	Review the policies, procedures, instructions, and information to understand the controls associated with this element.

Questions		
2.1	Are controls in place to ensure the operator submits mechanical interruption summary (MIS) reports to the Administrator before the end of the 10th day of the following month for each occurrence specified by 14CFR part 121.705? Note(s): <i>Number of propeller featherings for training, demonstration, or flight check purposes need not be reported.</i> Updated: Rev # 2 on 12/03/2009 Kind Of Question: Flag, Supplemental, Domestic	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
2.2	Are controls in place to ensure the operator properly prepares and distributes mechanical interruption summary (MIS) reports? Updated: Rev # 2 on 12/03/2009 Kind Of Question: Flag, Supplemental, Domestic	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
2.3	Are controls in place to ensure the operator reports the occurrence or detection of each failure, malfunction, or defect as specified by 14 CFR part 121.703? Updated: Rev # 2 on 12/03/2009 Kind Of Question: Flag, Supplemental, Domestic	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
2.4	Are controls in place to ensure the operator submits service difficulty reports (SDR) to the FAA offices in Oklahoma City, Oklahoma within 96 hours after the failure, malfunction, or defect, occurred? Note(s): <i>A report due on Saturday or Sunday may be submitted on the following Monday, and a report due on a holiday may be submitted on the next work day.</i> Updated: Rev # 2 on 12/03/2009 Kind Of Question: Flag, Supplemental, Domestic	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
2.5	Are controls in place to ensure the operator's service difficulty reports (SDR) include the detailed information as specified in 14 CFR part 121.703? Updated: Rev # 2 on 12/03/2009 Kind Of Question: Flag, Supplemental, Domestic	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

SAI SECTION 2 - CONTROLS ATTRIBUTE Drop-Down Menu	
1.	No controls specified.
2.	Documentation for the controls do not identify who, what, when, where, how.
3.	Controls incomplete.
4.	Controls could be circumvented.
5.	Controls could be unenforceable.
6.	Resource requirements incomplete (personnel, facilities, equipment, technical data).
7.	Other.

SAI SECTION 3 - PROCESS MEASUREMENT ATTRIBUTE

Objective:

Process measurements ensure the operator uses an internal evaluation function to detect, identify, and eliminate or control hazards and the associated risk. For airworthiness elements this is a required function of operator's Continuing Analysis and Surveillance System (CASS), required by 14 CFR 121.373. The director of safety and the quality assurance department often work together to accomplish this function for the operator. Negative findings could require amendments to the safety/internal evaluation program or CASS audit forms or checklists.

Tasks

	The inspector shall accomplish the following tasks:
1	Review the control questions in Section 2 of this SAI.
2	Review the operator's policies, procedures, instructions, and information to gain an understanding of the process measurements accomplished for this element.

Questions

3.1	<p>Are there process measurements that evaluate whether the operator's policies, procedures, and controls are achieving the desired results?</p> <p>Note(s): <i>Inspectors should refer to the controls in section 2 of this SAI for possible process measurements for this element.</i> <i>Persons engaged in this process should have a method for identifying undesired results.</i></p> <p>Updated: Rev # 2 on 12/03/2009 SRRs: 121.373 Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
3.2	<p>Do the operator's process measurements assess the performance of the processes associated with this element?</p> <p>Note(s): <i>Verify audits exist to measure this element's performance.</i> <i>Verify audits are scheduled for this element.</i> <i>Verify audits ensure everyone, including all outsource providers; comply with the operator's program, manual and all applicable regulations and statutes.</i></p> <p>Updated: Rev # 2 on 12/03/2009 SRRs: 121.373 Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
3.3	<p>Does the operator's program require the documentation of process measurement results?</p> <p>Updated: Rev # 2 on 12/03/2009 Kind Of Question: Flag, Supplemental, Domestic</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
3.4	<p>Does the operator's program describe how the process measurement results are used to improve the ability to achieve the desired results?</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

	Updated: Rev # 2 on 12/03/2009 Kind Of Question: Flag, Supplemental, Domestic	
3.5	Does the organization that conducts the process measurements have direct access to the person with responsibility for this element? Updated: Rev # 2 on 12/03/2009 Kind Of Question: Flag, Supplemental, Domestic	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

SAI SECTION 3 - PROCESS MEASUREMENT ATTRIBUTE Drop-Down Menu	
1.	No process measurements specified.
2.	Documentation for the process measurements does not identify (who, what, when, where, how).
3.	Inability to identify negative findings.
4.	No provisions for implementing corrective actions.
5.	Ineffective follow-up to determine effectiveness of corrective actions.
6.	Resources requirements (personnel, facilities, equipment, technical data).
7.	Other.

SAI SECTION 4 - INTERFACES ATTRIBUTE

Objective:

Data collected in this section helps the principal inspector determine if the operator identifies, documents and manages change between this process and other related processes within the operator's organization. It is important for the operator to identify and document where interactions between processes exist, and to have a method of managing change between these processes. Written policies, procedures, or instructions and information that are interrelated and located in different manuals within the operator's manual system must be consistent to allow personnel to perform their duties and responsibilities with a high degree of safety.

Tasks

	The inspector shall accomplish the following task:
1	Review interfaces associated with the processes for this element.

Questions

4.1	Does the operator identify and document the interfaces between processes? Updated: Rev # 7 on 09/30/2013 Kind Of Question: Flag, Supplemental, Domestic	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
4.2	Does the operator have a method to evaluate the impact of changes in this process to other related processes that interface with this process? Updated: Rev # 7 on 09/30/2013 Kind Of Question: Flag, Supplemental, Domestic	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

SAI SECTION 4 - INTERFACES ATTRIBUTE

Drop-Down Menu

1.	No interfaces specified.
2.	The following interfaces not identified within the certificate holder's manual system:
3.	Interfaces listed are inaccurate.
4.	Specific location of interfaces not identified within the manual system.
5.	Other

SAI SECTION 5 - MANAGEMENT RESPONSIBILITY & AUTHORITY ATTRIBUTE

Objective:

Data from questions in this section will help determine if there is an identifiable, qualified (when required by CFR), and knowledgeable person who:

- Is responsible for the process;
- Is answerable for the quality of the process; and
- Has the authority to establish and modify the process.

Tasks

	The inspector shall accomplish the following tasks:
1	Identify the person(s) who has overall responsibility for this element.
2	Identify the person(s) who has the authority to revise the procedures associated with this element.
3	Review the duties and responsibilities of the above person(s).
4	Review the appropriate organizational chart.

Questions

5.1	Is an individual(s) identified who is responsible for the quality of the procedures associated with this element? Updated: Rev # 2 on 12/03/2009 Kind Of Question: Flag, Supplemental, Domestic	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
5.2	Is an individual(s) identified who has the authority to establish and modify the policies, procedures, instructions, and information associated with this element? Updated: Rev # 2 on 12/03/2009 Kind Of Question: Flag, Supplemental, Domestic	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
5.3	Are duties and responsibilities documented for those who manage the procedures associated with this element? Updated: Rev # 2 on 12/03/2009 SRRs: 121.135(b)(2) Kind Of Question: Flag, Supplemental, Domestic	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain
5.4	Does the operator document the procedures for delegation of authority for this element? Updated: Rev # 2 on 12/03/2009 SRRs: 121.135(a)(1) Kind Of Question: Flag, Supplemental, Domestic	<input type="checkbox"/> Yes <input type="checkbox"/> No, Explain

SAI SECTION 5 - MANAGEMENT RESPONSIBILITY & AUTHORITY ATTRIBUTE

Drop-Down Menu

1. Not documented.

2.	Documentation unclear.
3.	Documentation incomplete.
4.	Other.